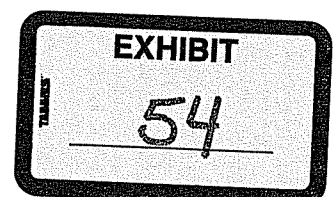


IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT, )  
in his capacity as the )  
TRUSTEE FOR NATURAL RESOURCES )  
FOR THE STATE OF OKLAHOMA, )  
Plaintiff, )  
vs. ) 4:05-CV-00329-TCK-SAJ  
TYSON FOODS, INC., et al, )  
Defendants. )

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THE VIDEOTAPED DEPOSITION OF  
TOMMY DANIEL, PhD, produced as a witness on  
behalf of the Plaintiff in the above styled and  
numbered cause, taken on the 26th day of November,  
2007, in the City of Fayetteville, County of  
Washington, State of Arkansas, before me, Lisa A.  
Steinmeyer, a Certified Shorthand Reporter, duly  
certified under and by virtue of the laws of the  
State of Oklahoma.

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**918-587-2878**



1 A I met with my dean of agriculture, Mark  
2 Cochran, again just to ask for advice.

3 Q All right. Did you meet with anybody from the  
4 poultry integrator defendants that have announced  
5 their position today? 09:09AM

6 A No.

7 Q All right. Tell the court what is your  
8 current employment position.

9 A I'm employed by the Crop, Soil and  
10 Environmental Science Department with the University 09:09AM  
11 of Arkansas.

12 Q How long have you been in that position?

13 A Since '89.

14 Q Are you a tenured professor there?

15 A Yes. 09:10AM

16 Q Were you at any other position at the  
17 University of Arkansas before the crop, soil and  
18 environmental area?

19 A No.

20 Q Let's talk a little bit about your education 09:10AM  
21 starting with where you graduated from high school.

22 A I graduated from Academy High School in Little  
23 River-Academy, Texas. Graduated from A & M in 1963  
24 and University of Wisconsin 1966 and then a PhD from  
25 University of Wisconsin in 1972. 09:10AM

1 A I've mostly talked to growers that are  
2 involved in the day-to-day operation.

3 Q Did any of -- talking to growers, does that  
4 involve solely within the state of Arkansas or was  
5 it elsewhere, too, that you did that work?

09:34AM

6 A Well, I would say probably other places. We  
7 would go to conferences. We might talk to the  
8 extension specialists for poultry in Georgia or  
9 Alabama.

10 Q Poultry is pretty big in the Georgia area, is  
11 it not, and Alabama?

09:34AM

12 A Yeah, yes.

13 Q Over what period of time would you say that  
14 you've conducted this kind of survey or discussions  
15 with growers involving their practices?

09:34AM

16 A Well, it's been ongoing since August of '89  
17 and, you know, that changes.

18 Q Sometimes more often than not? I mean when  
19 you say changes, you might be more involved doing it  
20 than other times?

09:34AM

21 A No. I mean the practices do change and you  
22 have to try and keep up.

23 Q Let me ask you then about the practice of  
24 removing the poultry waste and litter from the barn.

25 What generally has been the practice of dealing with

09:35AM

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1 that poultry waste generated at the barn?

2 A It's generally cleaned out once a year.

3 Q When it's cleaned out, what usually becomes of  
4 it?

5 A It's land applied. 09:35AM

6 Q And when you say land applied, it's spread on  
7 land. It's my understanding it's generally not  
8 incorporated when it's spread; is that true?

9 A It is not incorporated at the present time  
10 generally, common practice. 09:35AM

11 Q And that's been the common practice in the  
12 past; correct?

13 A Yes.

14 Q Based on your experience and knowledge, how  
15 long has spreading poultry waste when it's removed 09:35AM  
16 from the barns been done by the poultry growers?

17 A Well, certainly to my knowledge since '89, and  
18 I'm told that it's occurred prior to that as a  
19 fertilizer for the pasture and also been told that  
20 prior to that, the soils were very infertile, and 09:36AM  
21 this was a good practice that the growers liked and  
22 that's how the cow-calf operation became so  
23 prevalent in northwest Arkansas.

24 Q In your educating yourself with regard to  
25 common practice in the poultry industry, did you 09:36AM

1 Q This was published in '95, the one we are  
2 looking at, Exhibit 4.

3 A Let's take one there. Wilkinson was '79 and  
4 '90. I mean these are -- doesn't take a rocket  
5 scientist to figure out this is good fertilizer. 10:17AM  
6 When you put it out, it's obvious where you put  
7 litter and where you haven't.

8 Q At Page 322 you point out that litter is  
9 removed after five grow-outs and that it says  
10 currently litter is removed after five grow-outs, 10:18AM  
11 which is once a year. Upon removal, this material  
12 may be directly land applied or temporarily stored.  
13 Let me ask you this: Do you know whether or not  
14 once it's removed, that the poultry waste, poultry  
15 litter has any use in the growing of the poultry 10:18AM  
16 thereafter?

17 A Not to my knowledge, no.

18 Q That's in part why it's being spread on the  
19 land, is it not?

20 A Yes. 10:18AM

21 Q Under the heading land application manure, you  
22 talk about except for small amounts of poultry  
23 manure used in animal feed, the major portion,  
24 greater than 90 percent, is applied to agricultural  
25 land. That's the customary practice that I think we 10:19AM

1 Q Yes, and then would it -- would that term  
2 poultry litter or poultry waste refer to that  
3 produced by poults?

4 A If it has bedding and -- yes.

5 Q And, likewise, would that term poultry waste 10:21AM  
6 or poultry litter include turkeys?

7 A Yes.

8 Q In the second column of this same page at the  
9 top of the first paragraph, I'll read it so you can  
10 find it. It says, runoff of dissolved P -- that 10:22AM  
11 means phosphorus, does it not?

12 A Yes.

13 Q From fields receiving poultry litter can occur  
14 even when best management practices, BMPs, are  
15 utilized. Is that still your opinion today? 10:22AM

16 A You will -- yes.

17 Q Okay. I can finish that paragraph so it  
18 brings it into context. It says this is because  
19 poultry litter contains high concentrations of water  
20 soluble P, often in excess of 2,000 milligrams or 10:22AM  
21 kilogram to the one power. This fraction is readily  
22 transported in runoff water during intense rainfall  
23 events. That's essentially how you're saying  
24 phosphorus, soluble P gets into the water source.

25 Is that a fair statement? 10:23AM

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1 MR. McDANIEL: Object to the form.

2 A Yes. I mean if you didn't have runoff, it  
3 wouldn't -- water is a transport mechanism, yes.

4 Q In this article you speak to using composting  
5 and I would -- this may not be in your area, so if 10:23AM  
6 it isn't, just tell me. Do you know how long it  
7 takes when you refer to this thermophylic zone that  
8 is to compost and kill the microorganisms that are  
9 within the waste; are you familiar with that at all?

10 A I don't know all the details, but probably 10:24AM  
11 within weeks or months.

12 Q Okay, and -- but you go on to say in the  
13 bottom of the second column, however, composting is  
14 probably not cost effective with respect to  
15 agricultural usage of poultry manure since it's a 10:24AM  
16 time consuming, costly method resulting in an end  
17 product that is not any higher in nutrients than  
18 fresh litter. Let's talk a little bit. What do you  
19 mean by it's not any higher in nutrients than fresh  
20 litter? 10:24AM

21 A Well, basically you might alter that some  
22 because what happens in composting is that you are  
23 driving off the carbon; you are reducing the amount  
24 of carbon in the decomposition process. So your  
25 analysis would be -- you may start with 2,000 10:24AM

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